

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY**

Investigation by the Department of
Telecommunications and Energy on its own
Motion into the Appropriate Pricing, based upon
Total Element Long-Run Incremental Costs, for
Unbundled Network Elements and Combinations
of Unbundled Network Elements, and the
Appropriate Avoided Cost Discount for Verizon
New England, Inc. d/b/a Verizon Massachusetts'
Resale Services in the Commonwealth of
Massachusetts

D.T.E. 01-20

**VERIZON MASSACHUSETTS
FIRST SET OF INFORMATION REQUESTS TO AT&T AND WORLDCOM**

Verizon New England Telephone Inc. d/b/a Verizon Massachusetts ("Verizon MA") requests that AT&T Communications of New England, Inc. ("AT&T") and WorldCom, Inc. ("WorldCom") respond to the following information requests addressed to them or their witnesses. In the event responses to all or part of these requests will not be forthcoming in the time period established for this proceeding by the Department of Telecommunications and Energy ("Department"), kindly notify Verizon MA as soon as possible.

These requests shall be deemed continuing so as to require further and supplemental responses if AT&T and WorldCom, or their witnesses receive or generate additional information within the scope of these requests between the time of the original responses and the end of hearings in this proceeding.

All responses should conform to the specifications as given in the Definitions and Instructions, with respect to dates, documents, claims or privileges, etc.

If AT&T and WorldCom feel that any request is ambiguous, please notify Verizon MA so that the request may be clarified prior to the preparation of a written response.

DEFINITION AND INSTRUCTIONS

1. With respect to each question, please state: (1) the name(s) and title(s) of the person or persons responsible for preparing the response; (2) the name(s) and title(s) of the person or persons who would be competent to testify concerning the response, whether or not that person will be called as part of the party's direct case in this proceeding.

2. In these Information Requests, “AT&T” means AT&T Communications of New England, Inc., and its respective parents, subsidiaries, affiliates, agents, servants, attorneys, investigators, employees, ex-employees, consultants, representatives and others who are in possession of, or who may have obtained information for or on behalf of any of the above mentioned persons or entities.

3. In these Information Requests, “WorldCom” means WorldCom, Inc. and its respective parents, subsidiaries, affiliates, agents, servants, attorneys, investigators, employees, ex-employees, consultants, representatives and others who are in possession of, or who may have obtained information for or on behalf of any of the above mentioned persons or entities.

4. “Verizon” means Verizon New England, Inc. d/b/a Verizon Massachusetts.

5. “Document” and “documentation” are used in the broadest sense to mean all writings and records of every type, including without limitation, written, printed, typed or visually reproduced material of any kind, the original and all copies of any and all letters, reports, memoranda, files, communications, correspondence, agreements, bills, receipts, studies, analyses, telegrams, telexes, minutes, bulletins, instructions, literature, memoranda of conversations, notes, notebooks, diaries, data sheets, financial statements, work sheets, recordings, tapes, drawings, graphs, indexes, charts, telephone records, photographs, photographic records, computer files, whether or not such files are presently in a hard copy form, other data compilation, or any other written recorded, transcribed, punched, taped, filed or other graphic matter including any draft of the foregoing items and any copy or reproduction of any of the foregoing items upon which any notation, work figure, or form is recorded or has been made which does not appear on the original or as to whose existence, either past or present, the responding party has any knowledge of information. “Document” and “documentation” shall also mean copies of documents, notwithstanding that the originals thereof are not in your possession, custody or control, and all attachments to any document.

6. If AT&T and WorldCom cannot answer a request in full, answer to the extent possible and state why they cannot answer the request in full.

7. If AT&T and WorldCom refuse to respond to any request by reason of a claim of privilege, state the privilege claimed and the facts relied upon to support the claim of privilege.

8. Please serve a copy of the responses to these requests on Verizon MA’s attorney, Bruce P. Beausejour, 185 Franklin Street, Room 1403, Boston, Massachusetts 02110-1585. Please make every effort to expedite delivery of responses to these requests, including email, shipping by Express Mail, UPS, Federal Express, Purolator Courier, or means of equal or greater speed.

INFORMATION REQUESTS

1. Referring to page 8 of the Pitts testimony, please provide all documents concerning, referencing, relating to or substantiating the statement that “[s]witch manufacturers typically provide a larger discount for purchasing a new switch compared to a lower discount for purchasing add-on growth equipment to an existing switch.”

2. Referring to page 8 of the Pitts testimony, please provide all documents concerning, referencing or relating to switch discounts for AT&T and WorldCom for switching equipment. Include in this response:
 - a. Copies of any and all contracts with switch vendors in effect now for AT&T;
 - b. Copies of any and all contracts with switch vendors in effect now for WorldCom;
 - c. Invoices and all other documents relating to the purchase of switches by AT&T over the past two years;
 - d. Invoices and all other documents relating to the purchase of switches by WorldCom over the past two years.
3. Referring to page 23 of the Pitts testimony, please provide all documents concerning, referencing, relating to or substantiating the statement that a “conservatively realistic average trunk utilization would be at least 20 busy hour CCS/trunk.”
4. Referring to page 23, note 26 of the Pitts testimony, please provide a copy of the referenced Erlang B lookup table, including any instructions and guidelines for use of the table.
5. Referring to pages 28 through 30 of the Pitts testimony, please provide all documents concerning, referencing or relating to feature usage for feature port additives for AT&T and WorldCom.
6. Referring to page 38 of the Pitts Testimony, please provide all documents concerning, referencing, relating to or substantiating the statement that switch EF&I factors are in the range of 8-12 percent, not including vendor engineering and installation.
7. Referring to pages 40 and 41 of the Pitts Testimony, please provide all documents concerning, referencing, relating to or substantiating the proposed 30 percent switch EF&I factor.
8. Referring to page 12 of the Baranowski testimony, please provide all documents concerning, referencing, relating to or substantiating that in Massachusetts, undeveloped land 25 years ago has caused Verizon MA’s feeder routes to be longer than they would be if constructed today.
9. Referring to pages 15 through 18 of the Baranowski testimony, is it the position of AT&T and WorldCom that Verizon MA will provision loops to CLECs over the next five years through an Integrated Digital Loop Carrier interface, only, *i.e.*, it will not provision loops through a Universal Digital Loop Carrier interface? If the answer is anything other than an unconditional “no”, please provide the basis for the answer and all documents concerning, referencing, relating to or substantiating the response.

10. Referring to page 26 of the Baranowski testimony, please provide all documents concerning, referencing, relating to or substantiating the “assumption of 1.6 lines per living unit.”
11. Referring to page 28 of the Baranowski testimony, please provide all documents concerning, referencing, relating to or substantiating a copper feeder fill factor of 80 percent.
12. Referring to page 28 of the Baranowski testimony, please provide all documents concerning, referencing, relating to or substantiating a fiber feeder fill factor of 100 percent.
13. Referring to page 30 of the Baranowski testimony, please provide all documents concerning, referencing, relating to or substantiating the statement that “standard industry practice...designates the reservation of one spare maintenance duct per entire conduit section...”.
14. Referring to page 33 of the Baranowski testimony, please describe in detail the basis of the modification to the VCost module of the cost studies to compute the present value of 10 years of growth at the forecasted rate and provide all documents concerning, referencing, relating to that modification.
15. Referring to page 43 of the Baranowski testimony, please provide the basis of the proposed 30 percent reduction to both Repair and Maintenance dollars for metallic cable and provide all documents concerning, referencing, relating to or substantiating the basis for the proposed reduction.
16. Referring to page 44 of the Baranowski testimony, is it the position of AT&T and WorldCom that Verizon MA has not and will not incur wholesale advertising costs?
17. Referring to page 46 of the Baranowski testimony, please provide the basis of the proposed 50 percent reduction of OSS hardware costs between 1999 and 2002 and provide all documents concerning, referencing, relating to or substantiating the response.
18. Referring to pages 47 and 48 of the Baranowski testimony, please provide the basis of the proposed 50/50 split between Verizon MA and CLECs of OSS maintenance costs and provide all documents concerning, referencing, relating to or substantiating the response.
19. Referring to page 6 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the statement that “the approved service life for such cable is only 22 years.”
20. Referring to page 8 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the statement that “Verizon has already suffered stranded copper feeder investment as a result of placing fiber-fed (Optical) DLC.”

21. Referring to page 9 of the Donovan testimony, provide all studies or other analysis to support the conclusion that an appropriate fill factor for copper feeder cable in today's environment should be 80 percent.
22. Referring to page 9 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating your assertion that "[t]he capacity of in-place fiber feeder cable continues to be expanded using wave division multiplexing such as different colored lasers over a single fiber." Identify all locations where this technology is currently being used. If it is not being used, provide all documents concerning, referencing, relating to or substantiating when such technologies will be implemented in the field.
23. Referring to page 9 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the fill factors for AT&T's and WorldCom's own retail distribution facilities.
24. Referring to page 10 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that an appropriate fill factor for fiber loops and dark fiber should be 100 percent.
25. Referring to page 11 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the assertion that "[t]he generally accepted standard in the industry is to install enough plug-ins for existing service plus 6 months growth."
26. Referring to page 14 of the Donovan testimony, is it AT&T's position that the "Equivalent EF&I Hours" identified in the table reflect the time required only to install a DLC cabinet?
27. Referring to page 14 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the hours listed under the heading "Reasonable EF&I hours proposed by AT&T/WorldCom?"
28. Referring to page 22 of the Donovan testimony, identify all "major telephone companies" who provide xDSL to customers over exclusively fiber technologies. Provide all documents concerning, referencing, relating to or substantiating your answer.
29. Referring to page 24 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that "[n]o technician would trust a MLT loop length measurement . . .".
30. Referring to page 27 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the use of Celerity by ILECs.
31. Referring to page 30 of the Donovan testimony, is it AT&T's and WorldCom's contention that a forward-looking network should contain absolutely no copper?

32. Referring to page 31, footnote 41, of the Donovan testimony, provide the entire document titled: *"Telecommunications Transmission Engineering"*.
33. Referring to page 31, footnote 42, of Mr. Donovan's testimony, provide the entire document titled: *"Telcordia Notes on the Networks"*.
34. Referring to pages 36 and 37 of the Donovan testimony, provide the original source documentation and all documents concerning, referencing, relating to or substantiating the sample survey concerning the length of typical horizontal cables. Describe the methodology used to select the locations used in the sample and the determination of the length of the horizontal cables.
35. Referring to page 40 of the Donovan testimony, provide all documents concerning, referencing, relating to or substantiating the labor cost: (a) to place a punchdown terminal block; and (b) to punch down 50 pairs onto such a terminal block, under both the HAI Model and the FCC's Synthesis Model.
36. Referring to page 40 of the Donovan testimony, please provide the average length of time to (a) place a punchdown terminal block; and (b) punch down 50 pairs onto a terminal block for AT&T's technician and WorldCom's technicians and provide all documents concerning, referencing, relating to or substantiating the responses.
37. Referring to page 6 of the Walsh testimony, please provide the basis for the statement that "the data contained in the OSS would ... virtually be error free" and provide all documents concerning, referencing, relating to or substantiating the assertion.
38. Referring to page 8 of the Walsh testimony, describe in detail how the DS-0 path is redirected to the CLEC's equipment via the OSS. Explain what changes would be necessary in a environment of no less than six competing CLECs. Provide all documents concerning, referencing, relating to or substantiating your response.
39. Referring to page 9 of the Walsh testimony, please provide any and all instances in which ISDN and DDS services are presently "provisioned using Fiber-fed IDLC" and provide all documents concerning, referencing, relating to or substantiating the response.
40. Referring to page 11 of the Walsh testimony, describe in detail the number of separate competing carriers whose DS-0 signals can be directly integrated into the digital switch. Provide all documents concerning, referencing, relating to or substantiating your answer.
41. Referring to page 13 of the Walsh testimony, is it the position of AT&T and WorldCom that there will be no manual intervention in an efficient network. If the answer is anything other than an unqualified "yes," identify the amount of manual intervention and provide all documents concerning, referencing, relating to or substantiating the level of manual intervention.
42. Referring to pages 13 and 14 of the Walsh testimony, is it the position of AT&T and WorldCom that Verizon MA should not maintain personnel to assist CLECs to correct mistakes that CLECs make in the service ordering process?

43. Referring to page 17 of the Walsh testimony, is it the position of AT&T and WorldCom that with a forward-looking network, Verizon MA would never need to perform a field check to ensure that facilities exist to meet the requested order, regardless of the number of UNEs specified by a CLEC?
44. Referring to page 17 of the Walsh testimony, identify whether AT&T and WorldCom ever investigate whether a customer's request can be fulfilled before it acknowledges the order. If the answer is yes, describe in detail the process used to determine AT&T's and WorldCom's ability to fulfill a customer order and the associated expense incurred in performing this task. Provide all documents concerning, referencing, relating to or substantiating your answer.
45. Referring to page 18 of the Walsh testimony, line 6, identify the "minimal" level of processing fallout in the provisioning process that should be attributed to incorrectly supplied CLEC information. Provide all documents concerning, referencing, relating to or substantiating the response.
46. Referring to page 20 of the Walsh testimony, please all documents concerning, referencing, relating to or substantiating the recommendation of a 2 percent fallout rate for the MLAC.
47. Referring to page 21 of the Walsh testimony, describe in detail your previous personal involvement with the mechanization of manual tasks to OSS functionality.
48. Referring to page 21 of the Walsh testimony, provide all documents concerning, referencing, relating to or substantiating the assertion that manual assignment rates associated with the provisioning tasks for the CPC and RCMAC workgroups "are not at parity with similar retail services nor reflective of efficient corporate goals."
49. Referring to page 21 of the Walsh testimony, identify in detail how the following unbundled elements are "uniquely different" in the context of actual work time posted against the IOP Optical element for CPC-Specials Task #1: (1) IOF DS1; (2) IOF DS3; (3) Entrance Facility DS-1 Channel Term; (4) Entrance Facility DS-3 Channel Term; (5) Mux DS-3 to DS-1.
50. Referring to page 22 of the Walsh testimony, identify each service that Mr. Walsh asserts is similar to those services Verizon MA is offering to CLECs today. Describe in detail the "many test cases" that demonstrated this OSS flow-through functionality," as described in lines 15-16.
51. Referring to pages 23 and 24 of the Walsh testimony, please provide all documents concerning, referencing, relating to or substantiating the statement that the activities of the RCMAC relate to the "fixing of service related problems that are not caused by the CLEC."
52. Referring to page 24, line 22, of Mr. Walsh's testimony. Describe in detail the relevance of a "real world basis" in the formulation of a non-recurring cost model.

53. Referring to page 24, line 22, of Mr. Walsh's testimony. Describe the "real world basis" of each flow-through assumption included in the AT&T NRCM. Provide all documents concerning, referencing, relating to or substantiating your answer.
54. Referring to page 25 of the Walsh testimony, for each year since 1996, describe all actions taken by AT&T and WorldCom to eliminate errors in the placement of loop orders with Verizon MA. Identify by year the amount of expense incurred by each company, and a breakdown of that expense by account, including each assumed labor rate.
55. Referring to page 31 of the Walsh testimony, provide all documents concerning, referencing, relating to or substantiating the assertion that "[t]he Field Installation activities between the Central office and the customer's NID, however, are directly related to the recurring capital expense associated with producing the UNE-Loop."
56. Referring to page 32 of the Walsh testimony, provide all documents concerning, referencing, relating to or substantiating the NOC total time required to turn up a single DID in a manual environment.
57. Referring to page 38 of the Walsh testimony, is it the position of AT&T and WorldCom that if a task is not "necessary on every CLEC request" (emphasis in original), it is not a non-recurring cost? Please provide the a detailed explanation of the basis of the response.
58. Referring to pages 39 through 41 of the Walsh testimony, for each Field Installation Task indicated in the table that the testimony notes should be recovered as a recurring cost, please indicate with particularity whether the costs relating to that task is included in: (1) the recurring cost model filed by AT&T in this proceeding; and (2) the recurring cost model filed by Verizon MA in this proceeding. If the response indicates that the costs are included in a recurring cost model, please indicate, with particularity, where those costs are reflected and the precise amount of costs included.
59. Referring to page 2 of the Lee testimony, please provide AT&T's 1989 Petition, and all documents included with the Petition to the FCC, in which AT&T requested the FCC to base its regulatory depreciation on its financial books.
60. Referring to page 5 of the Lee testimony, please provide the complete comments of GTE Service Corporation, March 10, 1993.
61. Referring to page 6 of the Lee testimony, indicate whether AT&T or WorldCom currently use different lives for any regulatory reporting than for financial reporting to its stockholders. If so, provide all documents concerning, referencing, relating to or substantiating the different lives used ofr regulatory and financing reporting purposes.
62. Referring to page 8 of the Lee testimony, identify each state among the 20 states referenced that approved depreciation rates other than the last prescribed FCC lives. Provide copies of each Commission order in which a rate other than the last prescribed FCC lives were approved.

63. Referring to page 8 of the Lee testimony:
- (a) List any of the 20 states referenced that did not approve the last prescribed FCC depreciation lives.
 - (b) Identify what depreciation lives were approved by the states listed above (state prescribed, compromise, FCC ranges, etc.)
 - (c) Identify which of the 20 states authorized the prescribed lives.
64. Referring to page 11 of the Lee testimony, provide a copy of all studies and other documents relied upon to develop Attachment 2 to Mr. Lee's testimony.
65. Referring to the Lee testimony, provide the depreciation lives (projection lives) used by AT&T and WorldCom, or any of its affiliates, for the following:
- Digital Switching
 - Digital Circuit
 - Copper Cable (aerial, underground and buried)
 - Fiber Cable (aerial, underground and buried).
66. Referring to the Lee testimony, identify whether AT&T or WorldCom, or any of its affiliates, use different lives for equipment used to provide local service than it does for equipment used to provide long distance service? If yes, please provide all documents identifying such equipment lives.
67. Referring to page 9 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that "it is simply not possible" for forward-looking number of nodes per ring to be six.
68. Referring to page 10 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the assertion that "[o]ther pieces of equipment are able to perform the same function as DCS and do so with a much lower level of investment."
69. Referring to page 15 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that the in-place cost for transmission equipment should be "in the 30 percent range".
70. Referring to page 20 of the Turner testimony, please provide all documents concerning, referencing, relating to or substantiating the conclusion that most common transport distances will be much shorter than 37.52 miles.
71. Referring to page 20 of the Turner testimony, please provide all documents concerning, referencing, relating to or substantiating the recommended common transport distance between an end office and a tandem as approximately 12 miles.
72. Referring to page 21 of the Turner testimony, please provide all calculations, documents concerning, referencing, relating to or substantiating the proposed common transport rate of \$0.000091 per minute.

73. Referring to page 23 of the Turner testimony and Attachment SET-2, for each entry in Attachment SET-2, identify and explain the derivation of all dollar amounts shown, including assumptions and provide all documents concerning, referencing, relating to or substantiating these calculations and assumptions.
74. Referring to page 23, line 6 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the use of 7 years as a reasonable period for CLECs to collocate in Verizon MA central offices.
75. Referring to page 26, lines 1-42 of the Turner testimony, identify where in Verizon MA's 1998 compliance filing did Verizon MA propose a Land and Building rate of \$2.21 per square foot.
76. Referring to page 34 of the Turner testimony, lines 12 through 16, explain whether AT&T and WorldCom always fuse their equipment in this manner. If not, please provide all other methods used for fusing equipment located in Verizon-MA's central offices.
77. Referring to the table on page 37 of the Turner testimony, provide all documents, including individual tariffs, concerning, referencing, relating to or substantiating the DC Power Consumption Rate for each state shown, and the public utility commission orders approving such rates.
78. Please provide all documents concerning, referencing, relating to or substantiating the DC Power Consumption Rate for any states not on the table on page 37 of the Turner testimony.
79. Referring to the table on page 37 of the Turner testimony, identify each regulatory proceeding relating to DC power shown that Mr. Turner served as witness.
80. Referring to the table on page 37 of the Turner testimony, for each DC Power Consumption Rate shown, identify the rate structure used for each state listed.
81. Referring to the table on page 37 of the Turner testimony, for each DC Power Consumption Rate shown, identify each state that includes a nonrecurring charge for power cables, and provide all nonrecurring charges for those power cables.
82. Referring to page 38 of the Turner testimony:
 - (a) Did Mr. Turner participate in any manner in the "settled rates" in Nevada?
 - (b) Identify the number of central offices Verizon has in Nevada.
 - (c) Provide a copy of the Settlement Agreement.
83. Referring to page 38 of the Turner testimony, provide all calculations made to Verizon-MA's cost study based on changing the "Statewide Weighting Factor" so that rural offices account for 100 percent of the offices in Massachusetts.
84. Referring to page 39 of the Turner testimony, provide a copy of the Texas Public Utilities Commission order referred to on lines 4 through 7.

85. Referring to page 39, lines 5 through 7 of the Turner testimony, provide the cost studies and all associated workpapers together with the Texas PUC's evaluation of Southwestern Bell's costs for collocation.
86. Referring to page 41, lines 17-19 of the Turner testimony, provide the workpaper references where Verizon MA used an installation factor for electronic switching jobs and not power equipment.
87. Referring to page 42 of the Turner testimony, identify the Lucent pricing template for power equipment.
88. Referring to page 42 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that "digital switching equipment and the installation activity associated with this equipment does not even begin to compare with the installation activity associated with DC power equipment in terms of the complexity and testing associated with switching as compared with relatively simpler DC power equipment."
89. Referring to page 42 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that the ratio between material and total installed cost for electronic switching equipment is "totally unrelated" to the appropriate ratio for DC power equipment.
90. Referring to page 44 of the Turner testimony:
 - (a) Provide the job specifications that were used to develop AT&T's installation factor of 1.454.
 - (b) What size power plants in amps is the installation factor of 1.454 based on?
 - (c) What is the exact amount of the installation labor contained in the 1.454 installation factor? Explain why this amount is used.
 - (d) What is the exact amount of Vendor engineering costs contained in the 1.454 installation factor? Explain why this amount is used.
 - (e) What is the exact amount for hauling and hoisting costs contained in the 1.454 installation factor? If none, explain why not.
 - (f) What is the exact amount of warehousing costs contained in the 1.454 installation factor? If none, explain why not.
 - (g) What is the exact amount of transportation costs contained in the 1.454 installation factor? If none, explain why not.
 - (h) What is the exact amount of in-house engineering costs contained in the 1.454 installation factor?
 - (i) What state(s) were the power plant installations performed in that were used to develop the 1.454 installation factor?
 - (j) Provide the number and type, size, and components of the power plants used in the development of the 1.454 installation factor.
91. Referring to page 45 of the Turner testimony, provide a 2001 invoice from AT&T or WorldCom that reflects the costs of each of the following size emergency engines: 3,200 amps, 1,400 amps, 400 amps, 4,000 amps, 1,750 amps, and 500 amps.

92. Referring to page 44 of the Turner testimony, identify whether the 1.454 installation factor is based on the installation of an entirely new power plant(s), or an augment of an existing power plant(s).
93. Referring to pages 44-46 of the Turner testimony, identify whether a 400 KW emergency engine is sufficient to provide power to a 6,500 amp power plant? Explain the basis for your answer and provide all calculations used in deriving the response.
94. Referring to pages 44-46 of the Turner testimony:
 - (a) Identify the total amount of AC amps of current a 400 KW emergency engine is able to produce.
 - (b) Identify the total amount of AC amps of current a 350 KW emergency engine is able to produce.
95. Referring to page 45, line 16 of the Turner testimony, please describe in detail and quantify the “economies of scale” and provide all documents concerning, referencing, relating to or substantiating the response.
96. Referring to pages 45 and 46 of the Turner testimony, provide all workpapers to support the development of Verizon’s emergency engine capacity requirement.
97. Referring to page 49, line 23 of the Turner testimony, does the 45 feet of power cable referenced represent the total length of power cable required, i.e., battery and return? If not, using 45 feet as an average, what is the total length of power cable that must be placed to support CLEC equipment?
98. Referring to page 49 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the conclusion that “[i]n general, central office engineering guidelines require that BDFBs be placed centrally to the equipment they serve.”
99. Referring to page 49 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating cabling distances that “good engineering practice would call for.”
100. Referring to page 49 of the Turner testimony, provide all documents concerning, referencing, relating to or substantiating the 45 feet cabling distance between the Battery Distribution Fuse Bay and collocation equipment (or incumbent telecommunications equipment).
101. Referring to page 49 of the Turner testimony, identify all central offices that were relied upon to estimate the cabling distance of 45 feet between the Battery Distribution Fuse Bay and collocation equipment (or incumbent telecommunications equipment).
102. Referring to page 49 of the Turner testimony, provide all incumbent engineering documents reviewed by Mr. Turner regarding DC power cabling distances.

103. Referring to page 50 of Mr. Turner's testimony, provide a list of all central offices in California visited by Mr. Turner, and the dates they were visited. Provide all original source documents in the possession of Mr. Turner concerning these visits. Provide the same information for all other central offices visited by Mr. Turner, as referred to on page 50, line 18.
104. Referring to page 51, lines 16-17 of the Turner testimony, provide the cost support/study for the referenced 2-20 AMP DC Power Distribution Feeds (fused at 30 amps).
105. Referring to page 51, line 9 of the Turner testimony, identify whether the referenced power cable distance of 55 feet reflects the total footage required for the power cable, i.e., battery and return.
106. Referring to page 51 of the Turner testimony, please provide a copy of the Texas arbitration decision cited in footnote 51.
107. Referring to the Turner testimony, provide the cost support/study for the referenced 2-50 AMP DC Power Distribution Feeds (fused at 75 amps).
108. Referring to the Turner testimony, does AT&T propose terminating power cables over 60 amps to a BDFB? If not, what type of equipment would be used?
109. Referring to the Turner testimony, explain whether only cables terminated on the BDFB are captured in the DC Power Distribution rate element? If not, why not?
110. Referring to the Turner testimony, indicate whether the installation factor associated with a Digital Switch and the installation factor for Digital Switch Power is the same? If not, explain the basis for the assertion that the Digital Switch Power installation factor installs switching equipment?
111. Referring to the Turner testimony, provide all invoices associated with the construction and installation of an entirely new power plant in AT&T's two most recent installations in Massachusetts, including all associated labor costs, vendor engineering costs, housing and hoisting, warehousing costs, transportation costs, and in-house engineering costs. If Massachusetts is unavailable, please provide such information from one of the following states: Maine, New Hampshire, Vermont, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, or Washington D.C.
112. Referring to the Turner testimony, calculate the installation factor using the information contained in the response to Information Request 1-35.
113. Referring to the Turner testimony, provide all documents and invoices associated with the two most recent Massachusetts power jobs that involved the installation of batteries, including the cost of local engineering, warehousing, and shipment to the central office by a rigger licensed to transport hazardous material. Include the labor hours necessary to install, charge, and perform all operational tests.

114. Referring to the Turner testimony, Attachment SET 3, provide all cost documentation and workpapers, including invoices for material, that supports the AT&T/WorldCom cost calculations shown in Turner Attachment SET 3. In particular, provide all invoices to support the Power Consumption and Power Distribution rate element costs.